TOXOCITY PROGRAM REVIEW
STAKEHOLDER'S GROUP MEETING #2
October 3, 2001

PRESENT: Bill Taylor, Bill Ball, Nick Bennett, Joe, Payne, Dan Kusnierz, Tom Connelly, Darold Wooley, Steve Silva, Jennie Bridge, Bill Alsop, Marvin Cling, Brian Kavanah, Stuart Rose, Gregg Wood, Barry Mower, Dennis Merrill

1. DEP reported that a redraft of Section A of the rule has not been done. The intent remains to repackage the existing Section A as a separate rule and append the most current EPA water quality criteria. The group discussed concerns and issues that should be addressed as this section is prepared. The points raised included the following.

    - The Department should make sure that is able to use the latest EPA guidance for determining Water Effects Ratios. The latest guidance is more cost effective and streamlined.
    - Provisions need to be included to assure that alternate fish consumption values can used for waters when subsistence fishing or other sensitive uses exist.
    - Translator values for converting water quality standards from dissolved to total metal need to be addressed. EPA guidance is available. DEP will consider how to best incorporate this into the rules.

2. The group discussed concerns with sediment impacts and how those will be addressed. Previously, it was felt that concerns with sediment deposition of pollutants would be best addressed as part of DEP's SWAT program. DEP should develop a plan for how this will be done. In addition to metals, attention should be given to newer classes of pesticides or other pollutants. The group discussed sources of information now available on sediment contamination and how this can be consolidated and made available to the public. The Corps of Engineers probably has the most information at this point. If these and data from various studies can be put on a web site, the exchange of information would be greatly improved. Joe Payne distributed a reference to procedures for toxicity testing in estuarine sediments.

3. Several in the group expressed serious concern that DEP has not completed rule making to adopt the fresh water biocriteria standards. This is an important third part of the overall program to assess compliance with water quality standards, and DEP has been using the criteria as informal guidance for some time now. There was discussion of how or if the proposed criteria would apply to impoundments, such as those behind dams in rivers. The rock baskets used to evaluate compliance may not be appropriate for those kinds of habitants. Moving forward with the biocriteria should be part of or concurrent with revisions to the toxics rule.

4. After a brief overview by DEP, the "straw man" proposal for Section B was discussed. For exemptions and inclusions, the Department would have the ability to include specific sources such as boiler blow down based on materials in a license

application. There was considerable discussion on using the organic compounds on EPA's list of priority pollutants. This list is old and many of the compounds are no longer in wide use. Other, newer compounds, such as pesticides, present more current risks, and these should be investigated to see which ones could be added to or substituted for the current priority pollutant list. Individuals in the group will investigate this further and provide DEP with suggestions for revising the list. Related to chemical testing, the following points were also raised.

- Surfactants were cited as a concern; it was pointed out that WET testing is quite sensitive to these compounds.
- Fish tissue analysis may be a guide for what chemical-specific testing may be needed.
- In general, DEP should evaluate risks and focus testing where the most benefits are likely to come from the money spent on testing.
- Rather than specific testing, would money be better spent on pollution prevention and public education?

Some time was also spent discussing the proposed exemptions described in first part of the straw man proposal. As written, primary only municipal treatment facilities and larger commercial sources would be included under the rule unless they have flows below 50,000 gpd and have dilution factors of over 50:1. DEP distributed a list of municipal facilities licensed for 50,000 gpd or less; dilution factors are currently not available for all these facilities; DEP will investigate filling in this information.

It was suggested that minimum performance standards could be set for a "passing" WET test; these would effectively establish best practical treatment limits similar to those for conventional pollutants. Similarly, limits could be set for specific chemicals. Deriving appropriate standards would be a significant issue. From the WET data available, DEP could probably define a 95^{th} or 99^{th} percentile performance, similar to how EPA develops other effluent standards.

5. To begin the discussion of Sections C and D, DEP quickly reviewed some of the issues and topics that have come up and need some consideration. These are listed below.

- Confirmation that limits calculation would be done using data from the most recent 60 months and mass (pounds) for specific pollutants.
- How should the "weight of evidence" issue be addressed?
- What is the appropriate response to a single exceedence; are effluent limits needed?
- How should DEP handle facilities with pending design or opeational changes?
- What testing frequencies are appropriate when effluent limits are imposed?
- How should "less than" values handles for both exceedence and RP determinations?
- Should actual (not design) flow be used in RP determinations?
- What are the appropriate TRE responses for single and repeat exceedences?

- How should a single exceedence be handled in future calculations?
- Do full scale TREs need to be better defined?
- What role does pollution prevention have in the TRE process?
- How should background conditions be defined for hardness, metals or other parameters?
- What needs to be considered to guide collection of site specific information?
- How should cumulative impacts be addressed (multiple discharges into a river segment)?
- Are there thresholds for including/excluding facilities from cumulative impact analyses?
- How should waste loads for toxics be allocated over a river segment, and how are background conditions included?

6. Following this introduction, Bill Ball presented information on hardness calculations using site specific information at the point of discharge. A case study was used. In northern and eastern Maine, the hardness of natural waters is higher than in other regions, and typically is above the default of 20mg/L used by DEP. This effects water quality criteria for 6 metals since their toxicity is proportional to receiving water hardness. In view of these conditions, several dischargers petitioned DEP for rule making to include alternate procedures for including hardness by calculating the in-stream value downstream of a discharge point. Bill distributed a copy of proposed language. A letter from Charles Delos at EPA supports this position. The petition is being rolled into the group's review of the entire rule. Following Bill's presentation, discussion of hardness and related issues included the following.

    - DEP noted that its current hardness protocol calls for measuring hardness upstream of all pollution sources to help address cumulative impact of multiple discharges and the consequential increase in the mass loading of metals.
    - Hardness values should be used only for times of low flow in the receiving water since that is the time of maximum impact for metals.
    - The downstream fate both hardness and metals should be considered.
    - The fate of metals once they reach marine waters needs to be considered; typically metals tend to precipitate out when the reach salt water.

6. Background concentrations of metals need to be included in water quality evaluations, although DEP historically not done this due to a lack of information. Revision of the rule should include a means to include background metals. One proposal was to measure metal just above the point of discharge. Using background from pristine waters ignores contributions from tributaries and other sources. Multiple discharges into a river segment (a discharge "cluster") is a related issue. Such a situation can be defined generally as more than one discharge into a segment where the base flow (7Q10) is not significantly increased. With more than one cluster on a river system the metals leaving the first could become the background for the second.

7. RP calculations were also discussed. Using the actual plant flow from past records was suggested as a more realistic approach. Currently, design flows are used. This method accounts for future increases in discharge volume. Some thought that when background concentrations are included in calculations, RP is the best indicator of future impacts. It was also noted that a facility could reduce its licensed flow to remove a large difference between actual and design flows.

8. For the next meeting, DEP will prepare another straw man (a/k/a the straw dog) for sections C and D, attempting to provide different options in as many areas as possible.